SOME ECONOMIC ASPECTS OF WATER WORKS VALUATION

By Ralph E. Heilman[1]

The valuation of utility properties for rate making purposes has become an important problem in recent years. It will no doubt soon prove to be an important problem for all the privately owned water plants in Illinois, for the recent act creating the Public Utilities Commission places all such properties under the control of that commission. This act apparently gives to the commission the power to regulate, change or re-adjust the water rates at any time it may choose to do so in spite of the fact that many water companies are operating under franchises previously granted by municipalities, which give the right to make a certain charge until the expiration of the franchise period. This act apparently repeals and annuls all such outstanding franchises, and so the commission holds. Therefore, the question of valuation becomes of importance since the commission, in the opinion of the courts, must rest its rates upon the value of the property.

Valuation of water works is largely an engineering problem. Nevertheless, there are some very important aspects which present themselves concerning which the economist feels that he has something to say. There are several such economic questions, as for example, the allowance to be made in the valuation for franchise, good will, going concern, developmental expense and early losses. In the limited time at his disposal the writer will be able to discuss only one, namely, the proper allowance for developmental expenses and early losses.

A water works plant, like other businesses, often does not do a paying business during the first few years of operation. Business must be built up, individuals must be impressed with the superiority of the service over the use of wells, patronage must become established before the company really begins to earn a profit or fair return. Should not the expenditures thus incurred be included in

[1] Assistant Professor of Economics, University of Illinois

the valuation of the plant for rate making? If the corporations are to receive a return which would be only sufficient to attract capital under present conditions, what is to be done regarding the deficit or dearth of adequate returns during the early years of the company's history? Are these not a part of the investment necessary to establish the business?

Four methods of dealing with this problem in utility rate cases have been adopted. (1) Refusal to allow anything for this purpose. Both the Nevada and Nebraska commissions have taken this position. This position is essentially unsound. It is evident that unless such losses are in some way made up to the companies, private capital for utility enterprises will not continue to be forthcoming. (2) The Wisconsin method, which is to add early deficits and developmental losses to the valuation of the plant. Such losses, therefore, become assets, upon which the consumers are to pay a return permanently. (3) The New York First District commission's plan, which is to permit the company to charge in later years a rate sufficient to offset the deficiencies below a fair rate in the early years. (4) The New Jersey method, which is to add all expenditures to develop patronage to the valuation of the property.

The Wisconsin commission says, in justification of its method:[1] "These early losses . . . represent the cost of the business in very much the same way as that in which the cost of construction represents the cost of the physical plant. One appears to be as legitimate and necessary a part of the cost of the enterprise as the other." The commission qualifies the application of this principle by recognizing that early deficits can be thus treated only when the conditions under which they were incurred are proper ones.[2] "When such deficits are due to abnormal conditions, or are due to bad management, defective judgment, extravagance, lack of ordinary care or foresight, unduly high capital charges, and other causes of this nature, it is manifestly clear that they should be accorded little or no consideration, in either the valuation or the rates."

The St. Louis commission which proved itself probably the most efficient municipal commission in the country also adopted this principle, and in its valuation of the property of the Union Electric Light and Power Company allowed $1,000,000 for this purpose, saying: "These initial losses . . . are in fact a part of the

[1] Wisconsin Railroad Commission Reports, Vol. III, p. 624.

[2] Wisconsin Railroad Reports, Vol. IV, p. 585.

legitimate investment, and should be permitted into the earning value as a part of the investment."[3] The California commission approves of the doctrine that early losses should be recouped to the companies in some way, saying: "That there are certain actual costs incurred in developing the business during its early stages, for which costs the utility is entitled to be reimbursed . . . seems too obvious for argument." This principle and method have also been adopted by the Georgia, New Hampshire and Ohio commissions.

The objection of the New York First District commission to this plan appears to be that thereby any close relation between the valuation used for rate making and the actual physical value of the plant may be destroyed. The commission holds that "the amount included for going concern should be limited to expenditures made prior to the time when operation begins," and that after that, the various expenses which go to make up "going concern" should be charged to operation.[4] If the policy results in losses in the early years, the company should be permitted in later years to charge rates sufficient to offset its deficiences below a fair return in the early years. The commission states that to include such losses in the valuation of the property, or to permit them to be capitalized "is absurd, leading to gross over-capitalization." The Maryland commission has followed the New York practice, and in some cases where early losses actually occurred it has increased the rates in order gradually to provide for and cover such losses. But in no case has it permitted the inclusion of such losses in the plant valuation.

The Wisconsin practice seems to be the more rational. If the early deficits incurred in order to build up the business represent the cost of the property in the same sense that the investments in material equipment do, that is, if they are equally necessary, then the natural procedure is to add the amount of such deficits to the investment in equipment, the whole to represent the total investment upon which the company is entitled to a return. It is true that to do so means that a return upon these early deficits will be saddled permanently upon the consumers. But if such deficits, assuming them to represent wise expenditure, are a part of the legitimate and

[3] Report of the St. Louis Public Service Commission on Rate for Light and Power, 1911, p. 54.

[4] Queens Borough Gas & Electric Company case, decided June 23, 1911, No. 2, P. S. C., Report 1st District, New York.

necessary investment in the property, this is certainly proper. It may be immaterial to the company which method is used, since by either method it is, in reality, compensated. But to the consumers it may be a matter of importance, for the New York method brings a discrimination against the present consumers as compared with future ones. Why should the consumers of today be burdened with a higher charge for the purpose of recouping to the company one part of its investment—early losses—any more than they should be burdened with a higher rate to recoup the value of its land or buildings, in order that the consumers of tomorrow may not be required to pay a return upon such part of the investment?

Both the Wisconsin and the New York First District plans contemplate that only the deficits incurred in developing the business shall be made up in some way to the company. The fourth method as applied by the New Jersey commission applies an entirely different mode of reasoning. This commission holds not only that early deficits should be added to physical value, but that expenditures to get patronage and to develop the business should be included in the valuation, whether or no such expenditures have ever been recouped to the company. This theory is announced in its boldest form in the Public Service Gas case[5] decided December 26, 1912. In this case the commission announced that it would add about thirty per cent to structural value for "going value," such value to be "largely represented by the cost of developing the business, as distinct from the cost of securing the physical structure." The commission held, "we see no escape from the necessity of recognizing the intangible property designated as 'going concern value,' as well as actual physical structures similarly obtained, as constituting part of the present lawful possèssions of a public utility, even though both the tangible and the intangible values were built up in the past, out of rates exacted from the consumers. . . . If these high rates in the past have been employed by the company to acquire intangible property in the shape of extensive patronage, that expectation of patronage is theirs, and on its fair value the company is entitled to a return. The 'going concern value' will then be largely represented by the cost of developing the business as distinct from the cost of securing the physical structure." The principle laid down is that this cost of "developing the business"

[5] Report of the New Jersey Board of Public Utility Commissioners for 1912, p. 246.

should be added to the value of the physical property, even though expenditures for this purpose never produced a deficit, or a lack of adequate returns; in fact, quite regardless of what the returns of the company in the past may have been. "The going concern value may include the cost of soliciting business, cost of advertising, cost of inducing consumers to take service, cost of exhibiting appliances, cost of occasional free installations, etc." In other words, all such expenditures in the past are to be charged to capital account, even though these expenditures did not intrench upon a fair return. And this is because, "a plant with a business attached has a value greater than the value of the mere plant without the business attached."

This scheme calls for the most severe condemnation. It represents in the purest form, the capitalization, not simply of losses or deficiencies below a fair return, but of expenses. If all expenditures incurred by a company in order to secure and establish its business are to be added to capital value, then practically all expenses must be so treated, for practically every expense is incurred either to get or to hold business. All expenses of doing business are surely expenses incurred in order to hold the patronage, and are therefore responsible for the fact that the plant has a "business attached." The amounts expended for fuel with which to manufacture gas, the salaries of officials, the wages of employes, the cost of materials used, and all other legitimate operating expenses have been incurred either to develop or to hold patronage, and therefore, to "establish a plant with a business attached." For it is evident that if these expenditures were not made, there could not long be any patronage. It is obvious that to charge all operating expenses to capital would be unthinkable. But no differentiation can be made between the cost of getting patronage and the cost of serving the patronage, since without the service the patronage would not continue. Both are, properly, operating expenses.

The error of the New Jersey commission is due to its unqualified acceptance of the premise "a plant with a business attached has a value greater than the value of the mere plant without the business attached." This is always true in private business, but in the regulation of public utilities it may or may not be true. If a value in addition to physical value is to be allowed because there is a patronage established, it is evident that the cost added must be not the gross cost but the net loss, i.e., the deficits or the lack of adequate

returns due to developmental expenses. For it is only this amount which measures the *bona fide* investment, the sacrifice made by the owners of the property, in order to build up its business. To add the total expenditures made to develop the business regardless of the earnings which have been made means that all other operating costs incurred in the past, whether reimbursed to the company or not, should likewise be added to plant value: a preposterous proposal.